Lightweight Project Management Methodologies

Doing More with Less

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What is Project Management?

- The ensemble of activities concerned with successfully achieving a set of goals. This includes planning, scheduling and maintaining progress of the activities that comprise the [project](#).

- The discipline of maintaining the risk of failure at as low a value as necessary over the lifetime of the project. Risk of failure arises primarily from the presence of uncertainty at all stages of a project.

- The discipline of defining and achieving targets while optimizing the use of resources (time, money, people, space, etc).

- The province and responsibility of an individual Project Manager. This individual seldom participates directly in the activities that produce the end result, but rather strives to maintain the progress and productive mutual interaction of various parties in such a way that overall risk of failure is reduced.

Methodology
According to Merriam Webster

- A methodology is a body of methods, rules, and postulates employed by a discipline: a particular procedure or set of procedures.

A Traditional Approach

1. Project initiation
2. Project planning
3. Project production
4. Project monitoring
5. Project completion

Project management tries to gain control over four variables:

1. time
2. cost
3. quality
4. scope

Critical Path Method (CPM), Program Evaluation and Review Technique (PERT), Waterfall, Capability Maturity Model (CMM) - Due to the nature of the process, most traditional approaches necessitate all requirements be specified up front.

A Familiar Approach
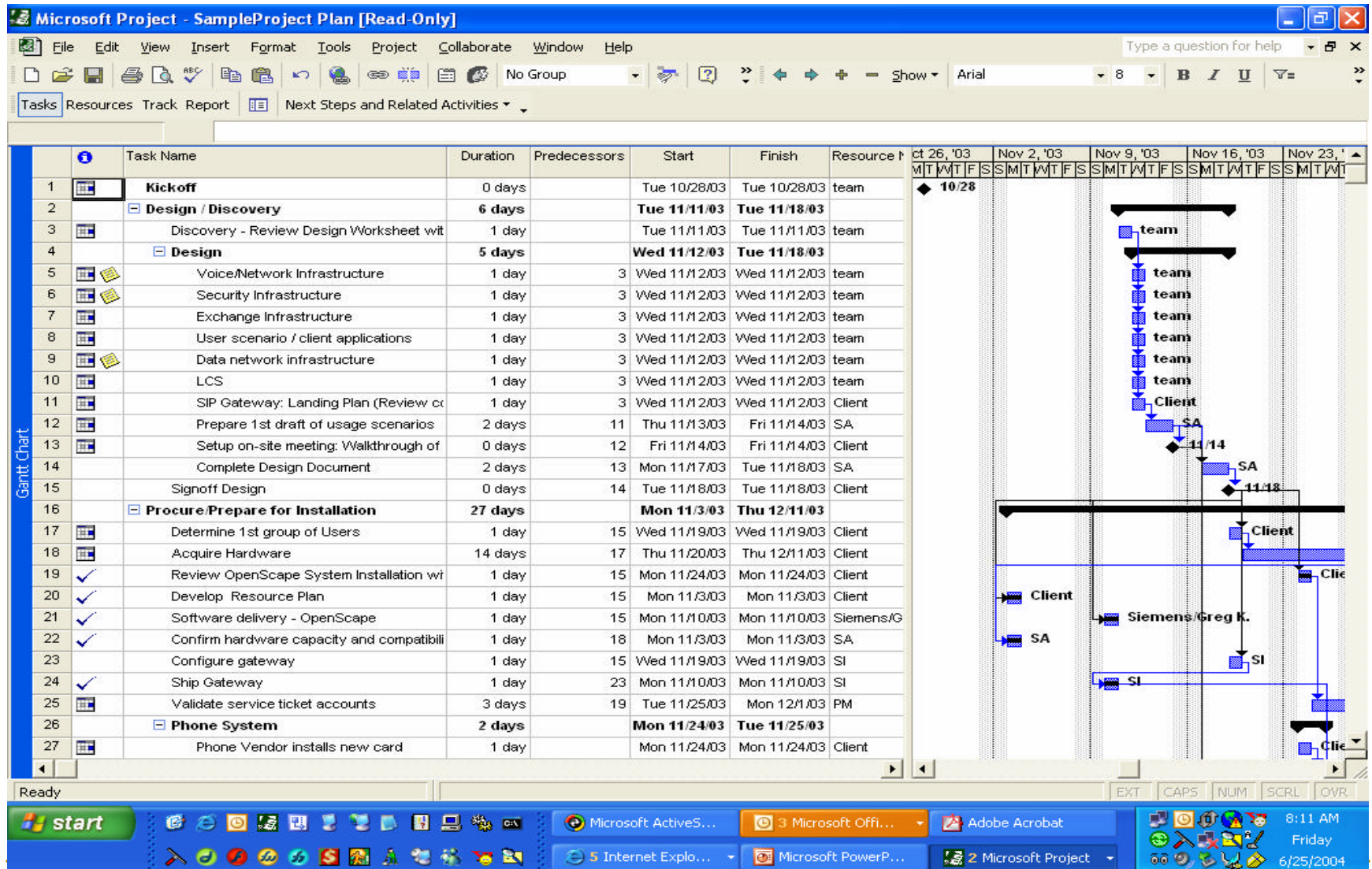
Introduction to Lightweight Approaches

Requirements:

1. 'Speed'
2. 'Smart'
3. 'Simplicity'

"A methodology should be as simple as possible to get the job done. If you make the requirements a burden rather than help, then people will resist following them".

- From the book, "Project Planning, Scheduling & Control".

"The chosen methodology must be simple enough to enable the smart people to concentrate on business and technology and deliver products at a high speed."

Extreme Programming, Scrum, Feature Driven Development, Lean Development Adaptive Software Development, Crystal Methodology, DSDM – ALL NOW UNDER THE UMBRELLA OF 'AGILE METHODOLOGIES'

Comparative Highlights

Traditional

1. Focus on Extensive up-front planning
2. Predictive
3. Disciplined & Repeatable Process to Increase Predictability
4. Process-Centric

Best Suited for Long-Term, multifacted, highly complex projects with one monolithic goal (getting to the moon & back safely)

Lightweight

1. Make it easy for the team to deliver results at frequent intervals to the customers
2. Provide support to the team to learn easily and adapt
3. Flexible

Best Suited for Short-Cycle, current-day projects requiring a flexible, people centric methodology (multi-department initiatives, system integration, software development, event-based projects i.e. G8)

Lightweight Tenets

1. Frequent Delivery
2. Responsive to Change
3. Enhanced Collaboration
4. Improved Communication
5. Empowered Team Environment
6. Simplicity

Frequent Delivery

- **Lightweight Project Management places heavy emphasis on the early and continuous delivery of valuable product.**

- **Believes in delivering working product frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.**

- **Projects are <u>iterative</u> & <u>incremental</u>. The most important thing is to deliver beneficial functions and features into the hands of the users.**

- **The product is incrementally developed and improved.**

- **Massive up-front planning is not done.**

- **The team gives continuous attention to technical details.**

Responsive to Change

- Change is part of any project. Change must always be considered as an advantage.

- Lightweight teams welcome changing requirements, even late in development.

- Team harnesses change for the customer's competitive advantage.

- Team does not attempt to control changes.

- The team decides whether to incorporate the changes, when and how.

Enhanced Collaboration

- Lightweight methodologies place a lot of emphasis on teamwork.

- Customers are on the same team – as a consequence customers are always available to for feature prioritization or product feedback.

- Resources collaborate with each other. Due to the team structure & environment, the problems are resolved faster.

Improved Communication

- Communication is vital for success

- Communication enables knowledge transfer as well.

- People are usually more effective in informal methods.

- A person can understand more by talking to another at the white board than by reading several pages of a manual.

# Empowered Team Environment

- The environment helps determine the success of a project.

- The Project manager must have good recruitment strategies.

- An environment of trust is made available.

- People are empowered - they assume responsibility for making decisions for collective benefits.

- The team is allowed to take risks.

Simplicity

- **Simplicity is another essential component.**

- **Provides a real value in high change situations.**

- **Provides a simple set of rules and it is easy for the team to follow.**
  - *The team uses intermediary artifacts, like models, only when absolutely required.*

- **Rather than writing very detailed functional requirements and specifications, ask the users what they want and implement.**

- **Uses high level specifications to guide the solution. Agile process does not see any value from a lot of low level detailed specifications.**

- **The project processes and procedures are also kept very simple.**

Lightweight Process
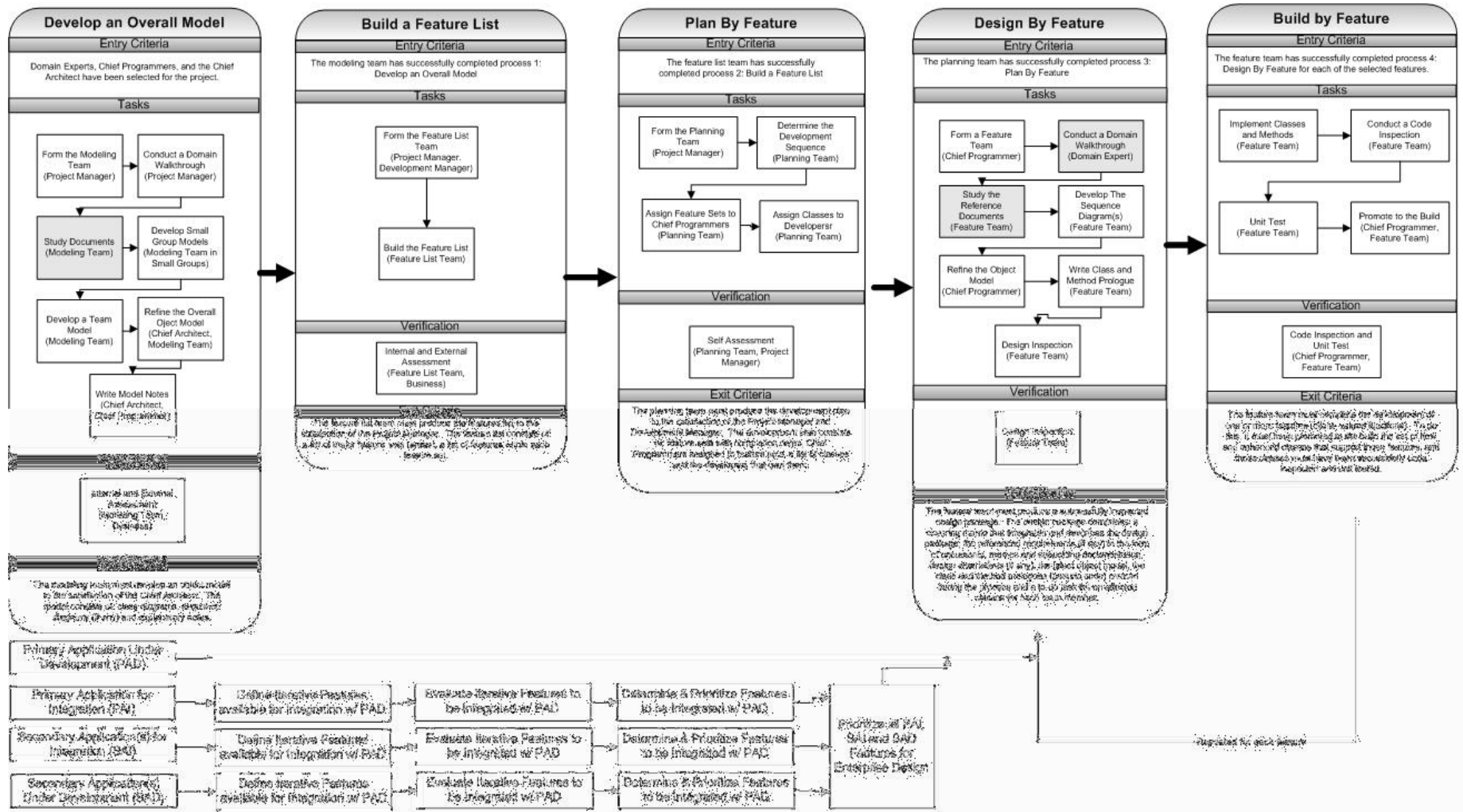
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Resources

- **Heavyweight vs. lightweight methodologies: Key strategies for development**
  Jason P. Charvat | December 2, 2002
- **Reforming Project Management, Hal Macomber**
- http://en.wikipedia.org/wiki/Project_management
- **Agile Project Management,** Written by: Sivasailam Sankara, PMP
- "A Practical Guide to Feature Driven Development" by Palmer, Stephen R and Felsing, John M.

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